

Work Order ID 60591

Thursday, July 15, 2010 10:19:01 AM

Page 1

Item ID: D206-642-341

Accept

Revision ID:

Item Name: Replacement Skidtube

Start Date: 7/15/2010 Start Qty: 1.00

Required Date: 7/22/2010 Req'd Qty: 1.00

Reference:

Approvals:

Process Plan: HDate: 10-7-15 Tooling:

Date:

QC:

Date: SPC (Y/N):

Date:

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2650

F

100

0.00



DC

DOCUMENT CONTROL

Memo

0.00

Document Control

-Photocopy bluefile and create labels per PPP D206-642-341 CHG003

N/A

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DCA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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Run Start



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Date:

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Sequence ID/
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Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Deburr Fwd edge of tube

2-Remove ridge on inside of Fwd edge of tube as per Dwg D2650

3-Weld Fwd Cap as per Dwg D2650. Use aluminum rod. Grind D2647 to fit as required.

A/R ☐ Aluminum Rod ☐

4-Grind weld flush to cap on top surface only.

5-Cut aft end to length as per dwg D2650

6-Drill pilot holes using drill Jig DT8168A (A, & B) and DT8025. Open to Ø0.312"

7-Drill holes for wearplates using DT 8028-5. Open to Ø 0.297".

8-Open Aft Cap Hole using #6 Drill Bit

9-Open holes for Tow Ring to Ø0.625" as per Dwg D2650, D2650-5 Drilling Detail

10-Remove inner indexing ridge on aft end of skidtubes as per Dwg D2650

11-Deburr and Blow out all chips from inside the tube

10-7-19

BE 10/7/19

BE 10/7/19

10/7/20

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Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

115

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

120

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

125

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

10

1 H 10/7/21

D, 10-2-21

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130



Skidtubes

Skidtubes

Skidtubes

Memo

0.00

1-Open holes to finished size as per Dwg D2650, D2650-5 Drilling Detail
(without cutting fluid)

2-Countersink crossbolt spacer holes as per Dwg D2650(without cutting fluid)

3-Deburr. Blow out chips. Grind alodine off around crossbolt spacer.

4-Bond D2654-5 web in place as per QSI 015 Ensure holes line up Allow 12 Hrs.
cure time before cutting ☐Start Date: 10/7/22 Time: 2:04 ☐Finish Date: 10/7/22 Time: 8:45 AM ☐A/R ☐ Sikaflex-291 ☐ 01/11/30 ☐

Sikaflex expiry date: 01/11/30

140



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

H 10/7/21

S 10/10/22

(40)

W/O:		WORK ORDER CHANGES						
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Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

150

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Prep per QSI 005 and Insert cross bolt spacers D2649. Weld as per QSI 004 and Dwg D2650. Remember to back drill each hole to 0.25" before welding the other side. Use aluminum rod.
A/R ☐ Aluminum Rod ☒ M112507 BE 10/07/26

2-Grind welds flush as per Dwg D2650. Masking Tape access to inside of the Skidtube

3-Counterbore 5/16" x 0.750" deep as per Dwg D2650 Debur

4- Install nut plate as per dwg

10-7-27

170

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

Quality Control

8/10/07

(K1)

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Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

190

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

Brush alodine tube on crossbolt spacer area, do not acid etch, do not dip tube in tank.

1 BH 107-27

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME: 8:50
OVEN TEMPERATURE: 320
FINISH TIME: 9:20

1 BH 107-28

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210

QC3- Inspect Part Finish

0.00

= 2 H1

10/08/03

1

0/



QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

220

0.00



HandFinish

HandFinishing

Hand Finishing

Memo

0.00

1-Install inserts & wearpads as per dwg D2922. Use a drop of Sikaflex inside insert holes before installing wearpad/wearplate.

A/R ☐ Sikaflex-291 ☒ 11/15/14Sikaflex expiry date: ☐ 11/01

2-Install O-Rings D2651-3 on plugs D2651-1 with Petroleum Jelly and install plugs as per Dwg D2650. Clean excess adhesive

3-Install MS27039-4-06 Screw as per DEO 9153

4-Inspect for foreign object per QSI 024

5-Install D2646 Aft Cap and seal with SikaflexClean excess adhesive

A/R ☐ Sikaflex-291 ☒ 11/15/14Sikaflex expiry date: ☐ 11/01

6-Wing Walk as per Dwg D2650.5 and QSI 005 4.4

Batch: 1115028

⇒ 210/08/03 1 0

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230  QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00	<i>810108103</i>						
240  QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00	<i>810108103</i>			<i>10</i>			
250  Packaging Packaging	Packaging Memo Identify and pack for shipping as per PPP D206-642-341 Location: _____ PPP Rev: _____	0.00 0.00	<i>PP 60598</i>					<i>10/8/53d</i>	

W/O:		WORK ORDER CHANGES					
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Reference:

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

260

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/08/05

ME
10-8-5

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Picklist Print

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Page 1

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Parent Item: D206-642-341

Parent Item Name: Replacement Skidtube



Start Date: 7/15/2010

Required Date: 7/22/2010

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev: H05.10.11 Added D3429-1 per CHG004 KJ/CP/JLM
IPP Rev: I 08-09-29 revF as per dwg DD verified by: EC Est Rev: J 09-03-02 as per DSI9440 rev.a DD verified by: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN960JD416 	<u>MAS1149D0463</u>	Purchased	No		1115000		Each	0.0000	1	1			
Washer													
CCR264SS3-3 		Purchased	No				Each	540.0000	2	2			
Cherry Rivet													

Location

Loc Qty

Loc Code

ST311

540

112314

4

113539

60

113973

476

(2)

DD

10-7-27

CR3212-4-03

Purchased

No



Cherry Rivet

Each

3,739.000

2

2



Location

Loc Qty

Loc Code

ST311

3739

111359

5

112314

30

114436

1142

114450

564

114859

1998

(2)

DD

10-7-27

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Parent Item Name: Replacement Skidtube

Start Date: 7/15/2010

Required Date: 7/22/2010

Start Qty: 1.00

Required Qty: 1.00

D2620 Manufactured No



Skidtube, 206 Skidtube

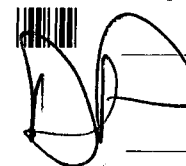
Each 12.0000 1 1

Location

Loc Qty

Loc Code

LG 12
55550 2
57542 10



D2647 Manufactured No



Cap

Each 80.0000 1 1

Location

Loc Qty

Loc Code

FP 80
55352 80



D2649 Manufactured No



Cross Bolt Spacer

Each 69.0000 19 19

Location

Loc Qty

Loc Code

LG 69
58545 69



D2654-5 Manufactured No



Web

Each 0.0000 1 1

Location

Loc Qty

Loc Code

ST021 43
55366 43



D2680-041 Manufactured No



Nut Plate

Each 43.0000 1 1



ST021

43

Loc Code

55366

43

Loc Code



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Start Date: 7/15/2010

Required Date: 7/22/2010

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-130

Purchased

No

220

Each

4,506.000

54

54



Insert

Location

Loc Qty

Loc Code

PKG11

4190

114723

4190

ST282

277

110511

38

114407

239

ST381

39

114654

39

AN960C10L

NAS1149C0332
R

Purchased

No

220

Each

0.0000

54

54



washer

1115000

AN960JD10L

NAS1149D0332J

Purchased

No

220

Each

3,181.000

2

2



Washer

Location

Loc Qty

Loc Code

ST348

3181

110985

3181

D2646

Manufactured

No

220

Each

94.0000

1

1



Aft Cap

Location

Loc Qty

Loc Code

FP-4

85

57332

85

FP6

9

52663

9

x1 11 10/08/03

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D2651-1 Manufactured No 220 Each



Plug

Location	Loc Qty
FP	208
51530	208
fpa	596
53349	411
57869	185

D2651-3 Manufactured No 220 Each



O-Ring

Location	Loc Qty
FP	412
46114	412

D3535-11 Manufactured No 220 Each



Wearshoe

Location	Loc Qty
FP019	11
57261	11

D3535-23 Manufactured No 220 Each



Wearshoe

Location	Loc Qty
FP21	5
57730	5

Start Date: 7/15/2010

Required Date: 7/22/2010

Start Qty: 1.00

Required Qty: 1.00

804.0000 14 14



Loc Code

X14 JU 10/08/03

412.0000 14 14



Loc Code

X14 JU 10/08/03

11.0000 1 1



Loc Code

X1 JU 10/08/03

5.0000 1 1



Loc Code

X1 JU 10/08/03

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Work Order ID: 60591

Parent Item: D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 7/15/2010

Required Date: 7/22/2010

Start Qty: 1.00

Required Qty: 1.00

D3535-35 Manufactured No

220 Each

7.0000

1

1



Wearshoe

Location

Loc Qty

Loc Code

FP018

7

59237

7

D3536-11 Manufactured No

220 Each

19.0000

1

1



Gasket

Location

Loc Qty

Loc Code

FP011

12

57867

12

ST497A

7

46649

3

46715

4

D3536-23 Manufactured No

220 Each

6.0000

1

1



Gasket

Location

Loc Qty

Loc Code

FP011

6

58819

6

D3536-35 Manufactured No

220 Each

11.0000

1

1



Gasket

Location

Loc Qty

Loc Code

FP012

11

58683

11

X1 58 10/08/03

X1 58 10/08/03

X1 58 10/08/03

X1 58 10/08/03

Thursday, July 15, 2010 10:19:05 AM

Shop Packet Print

Page 5

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 6

Thursday, July 15, 2010 10:19:05 AM

Work Order ID: 60591

Parent Item: D206-642-341

Parent Item Name: Replacement Skidtube

Start Date: 7/15/2010

Required Date: 7/22/2010

Start Qty: 1.00

Required Qty: 1.00

D3537-1

 Manufactured No
 Wearpad

220 Each 44.0000 6 6

Location Loc Qty Loc Code

FP 1
 55465 1
 FP17 43
 57713 3
 59593 40

X6 M 10/08/03

D3537-3


 Manufactured No
 Wearpad

220 Each 20.0000 1 1

Location Loc Qty Loc Code

FP17 4
 57512 4
 FP19 16
 59711 16

X1 M 10/08/03

MS27039-1-08 *

 Purchased No
 Screw Replace with

220 Each 2,075.000 56 56

Location Loc Qty Loc Code

ST291 2075
 110835 875
 114718 200
 115108 1000

M115336 X56 M 10/08/03

MS27039-4-06

 Purchased No
 Screw

220 Each 28.0000 1 1

Location Loc Qty Loc Code

ST292 28
 109061 28

X1 M 10/08/03

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Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Dart Aerospace Ltd

W/O: 60591		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10.07.20	220	USE MS27039C1-08 / M19185 INSTEAD OF MS27039-1-08	JLS	10/09/20	560	CP 10.07.20 OS/042	

REFERENCE ONLY

Part No: D206-642-341 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10.07.20	220	IPP CALLS FOR MS27039-1-08, 11N CALLS FOR MS27039C1-08	CP 10.07.20 OS/042	UPDATE IPP TO CALL FOR MS27039C1-08			CP 10.07.20 OS/042	

REFERENCE ONLY

Initial all entries

QTY -1	QTY -3	QTY -5	QTY -7	PART NUMBER	DESCRIPTION
X				D2650-1	SKIDTUBE ASSEMBLY
	X			D2650-3	SKIDTUBE ASSEMBLY
		X		D2650-5	SKIDTUBE ASSEMBLY
			X	D2650-7	SKIDTUBE ASSEMBLY
1	1	1	1	D2600-1-160	EXTRUSION
1				D2654-1	WEB
	1			D2654-3	WEB
		1		D2654-5	WEB
			1	D2654-7	WEB
1	1	1	1	D2646	AFT CAP
1	1	1	1	D2647	CAP
17	18	19	23	D2649	CROSS BOLT SPACER
16	18	14	22	D2651-1	PLUG
16	18	14	22	D2651-3	O-RING
1	1	1	1	D2680-041	NUT PLATE
2	2			D3286-1	DOUBLER
2	2			D3286-3	STUD
42	44	54	60	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, ALS7-1032-130)
2	2	2	2	AN960JD10L	WASHER
2	2	2	2	CCR264SS3-3	RIVET
2	2	2	2	CR3212-4-03	RIVET
2	2	2	2	MS27039-1-08	SCREW
1	1	1	1	MS27039-4-06	SCREW
1	1	1	1	AN960JD416	WASHER
52	52			CR3212-4-04	RIVET

F

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 40591

13810-7-15

RELEASED
08-07-23/17

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: -CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
-POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
-BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A
- 8) WELD PER DART QSI 004
- 9) DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 5 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- 10) BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015
- 11) INSERT D2651-1 PLUG C/W D2651-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE)
- 12) DRILL Ø0.297 FOR ALS7-1032-130 INSERTS USING TEMPLATE DT8056-1 ON -1 TUBE, DT8056-3 ON -3 TUBE, DT8056-5 ON -5 TUBE, AND DT8056-7 ON -7 TUBE. INSTALL INSERTS AFTER FINISH.
- 13) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

F	DRAWING UPDATED TO CURRENT STANDARDS. SHT 6 ADDED. ALL SECTION AND DETAIL VIEWS TRANSFERRED TO SHT 6. SHT 1 IN PL PART D2649 QTY UPDATED. SHT 6 SECT C-C GRIND INSTRUCTIONS DELETED FROM NOTE 7 (SEE NCR 239).	AJS	08.08.08
E	REMOVE CBORE, CHG DRILL, ADD CHAMFER	CP	06.03.30
D	REDRAW: INCCRP. DE09136/9153/9163 MOD GROUND HANDLING ON D2650-1/-3	CP	04.05.17
C	CHANGE HOLE PATTERN AND FRONT END	DS	97.10.29
B	AS MANUFACTURED CHANGES	DS	97.06.26
A	NEW ISSUE	DS	97.03.25
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE USA, INC PORT HADLOCK, WA	
DRAWN	AJS		
CHECKED	J	DRAWING NO.	REV. F
MFG. APPR.	J	D2650	SHEET 1 OF 6
APPROVED	J	TITLE	SCALE
DE APPR.	J	206/407 SKIDTUBE ASSEMBLIES	NTS
DATE	08.08.08	COPYRIGHT © 1997 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRELIMINARY AND CONFIDENTIAL AND IS NOT TO BE USED FOR ANY PURPOSE OR DISCLOSED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

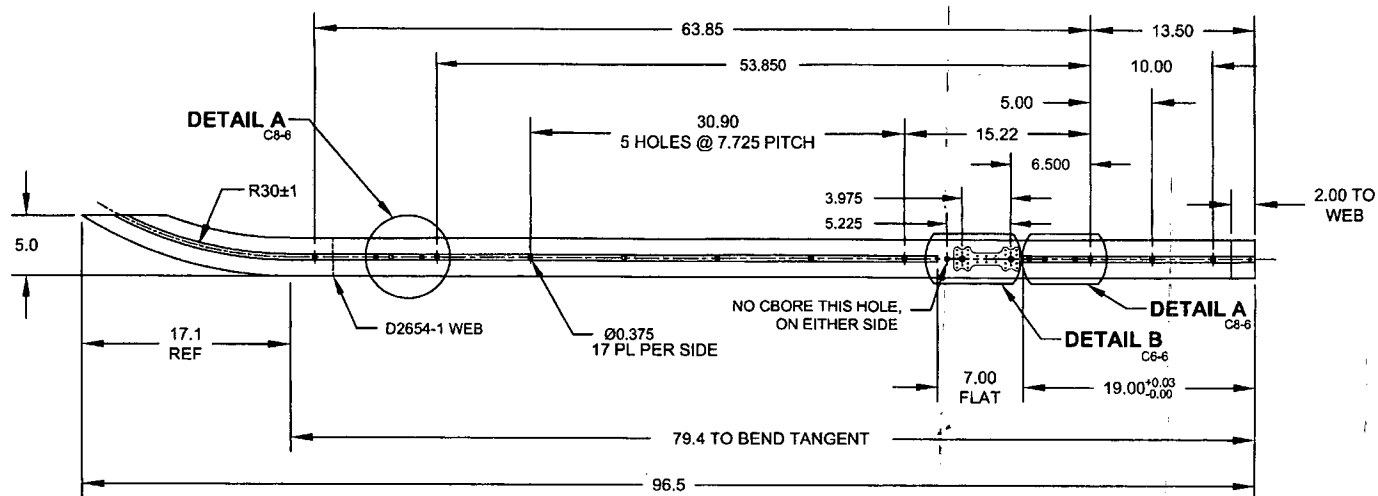
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval- Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

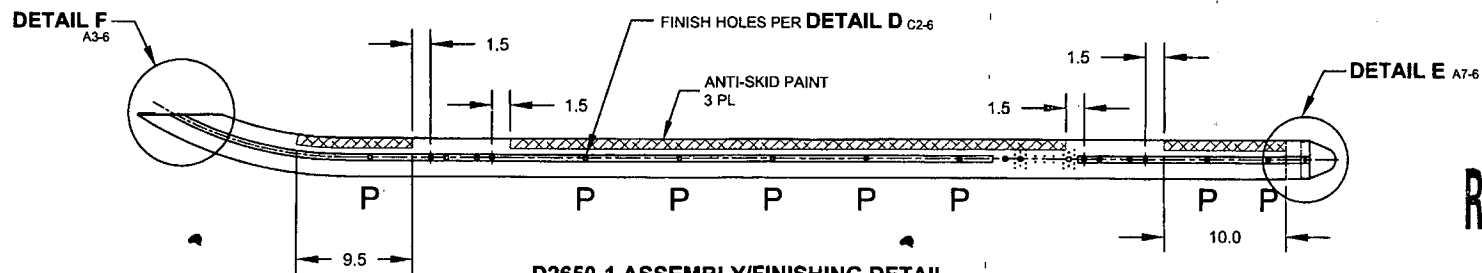
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D2650-1 BENDING/DRILLING DETAIL



D2650-1 ASSEMBLY/FINISHING DETAIL

RELEASED
620922/10

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 2 OF 6
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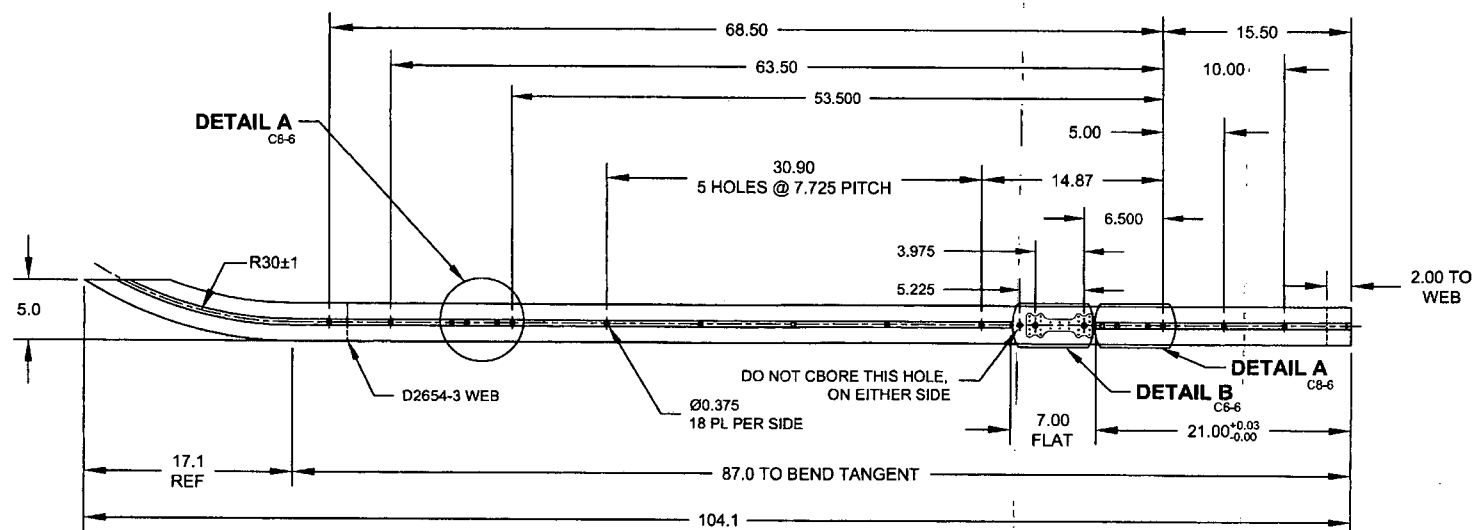
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

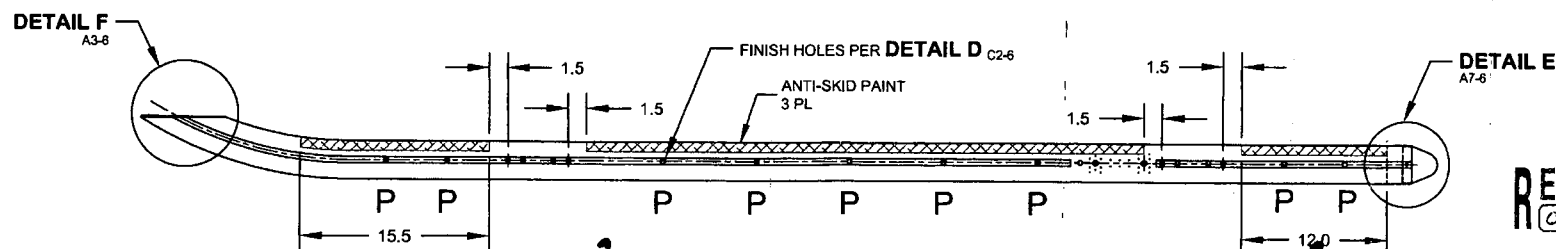
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D2650-3 BENDING/DRILLING DETAIL

W/b 40591



D2650-3 ASSEMBLY/FINISHING DETAIL

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 3 OF 6
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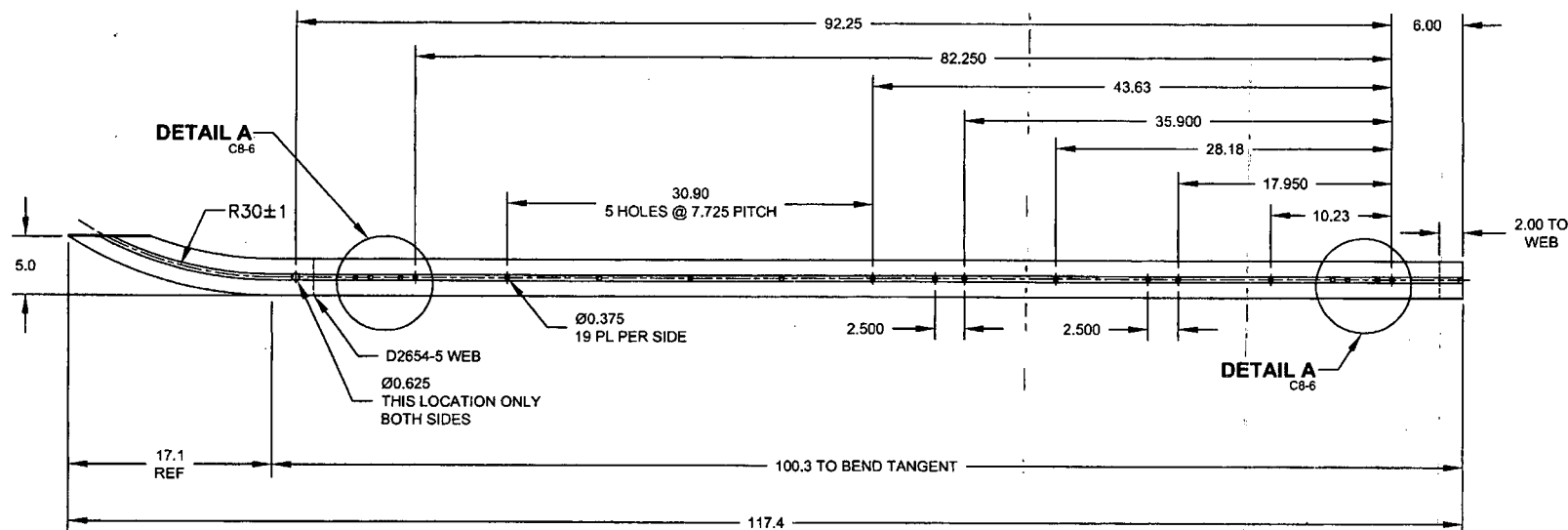
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

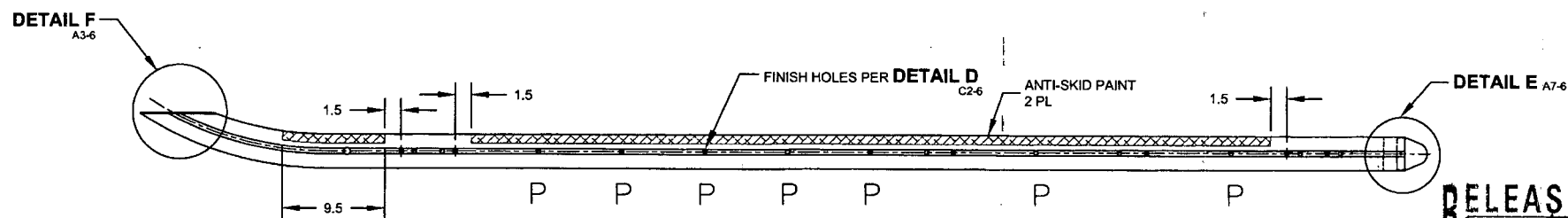
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D2650-5 BENDING/DRILLING DETAIL



D2650-5 ASSEMBLY/FINISHING DETAIL

DESIGN	DS	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED	J	DRAWING NO.	REV. F
MFG. APPR.	E	D2650	SHEET 4 OF 6
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RELEASED
178 09 11/17

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

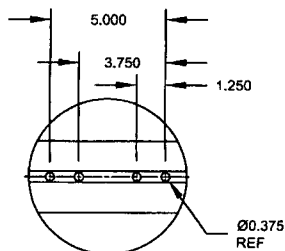
W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

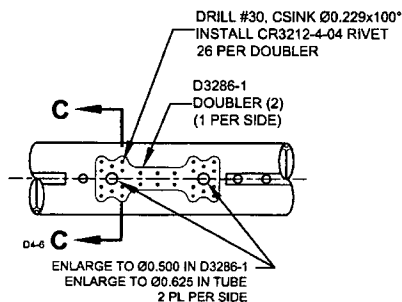
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)							
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector	
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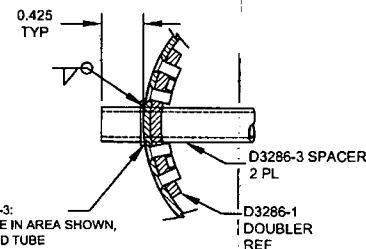


DETAIL A
SCALE 2X
C2-2
D7-2
C2-3
D7-3
C2-4
D7-4
C2-5
D5-5

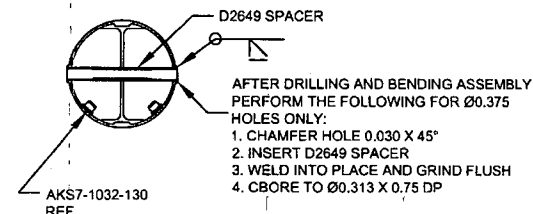


DETAIL B
SCALE 2X
C3-2
C3-3

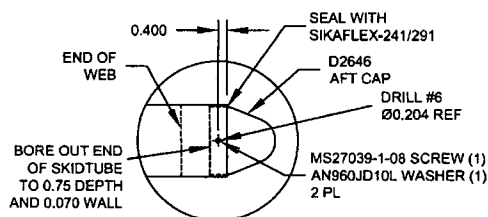
SECTION C-C C7-6
SCALE NONE



- TO INSTALL D3286-1/3:
1. GRIND OFF FLANGE IN AREA SHOWN, FLUSH WITH ROUND TUBE
 2. LOCATE & DRILL D3286-1 DOUBLER USING DT3286-1T1
 3. ENLARGE HOLES IN D3286-1 TO Ø0.500
 4. ENLARGE HOLES IN TUBE TO Ø0.625 AND CHAMFER HOLE 0.030x45°
 5. RIVET D3286-1 TO TUBE
 6. INSERT D3286-3 SPACER
 7. WELD IN PLACE.

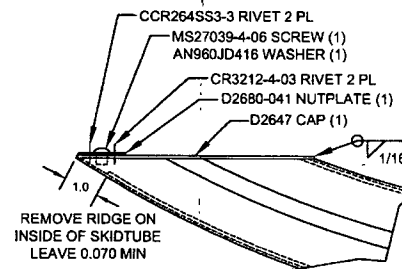


DETAIL D
FOR Ø0.375 HOLES ONLY
SCALE 3X
B4-2
B4-3
B4-4
B4-5



DETAIL E
SCALE 2X
B2-2
B2-3
B1-4
B1-5

ORIENTATION OF
D2680-041



DETAIL F
SCALE NONE
B8-2
B8-3
B8-4
B8-5

DETAIL F NOTES:

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D2647 (TRIM AS NECESSARY)
4. WELD D2647 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D2680-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D2680-041 PRIOR TO FINISH

RELEASED
08-09-22-18

DESIGN	DS	DART AEROSPACE USA, INC	
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CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2650	SHEET 6 OF 6
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DE APPR.		206/407 SKIDTUBE ASSEMBLIES	NTS
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W/O:		WORK ORDER CHANGES						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 235

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Berkeley Elliott
Job number: 59780
Part number: D206-642-541
Description: 206 skid tube
Welding Process: Tig[☒] Mig[]
Base material: Aluminium
Current: AC[] DC[☒]

TEST REQUIREMENTS AND RESULTS

Visual:
Penetration:

pass[☒] fail[]
pass[] fail[]

UNACCEPTABLE

Cracks:
Undercut:
Pin holes:
Overlap (cold lap)
Porosity (surface):
Coloration:

pass[☒] fail[]
pass[☒] fail[]
pass[☒] fail[]
pass[☒] fail[]
pass[☒] fail[]
pass[☒] fail[]

Qualifier P. D. H.

Date of Test Coupon 10.07.01

Welder Berkeley Elliott

Date of Test Coupon 10-07-01

The above named individual is qualified in accordance with AWS D17.1.2001 to weld